C
M693 wZm
1872/73

THE LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

UNIVERSITY OF MISSOURI.

SCHOOL OF

Mines and Metallurgy

ROLLA, PHELPS COUNTY, MO.

ANNOUNCEMENT AND REGISTER FOR YEAR ENDING JUNE 21st, 1873.

ST. LOUIS:
THE R. P. STUDLEY CO., PRINTERS, 221 NORTH MAIN STREET.
1873.

UNIVERSITY OF MISSOURI.

SCHOOL OF

Mines and Metallurgy

ROLLA, PHELPS COUNTY, MO.

ANNOUNCEMENT AND REGISTER FOR YEAR ENDING JUNE 21st, 1873.

ST. LOUIS:
THE R. P. STUDLEY CO., PRINTERS, 221 NORTH MAIN STREET.
1873.

School of Mines.

FACULTY AND INSTRUCTORS.

DANIEL READ, LL.D.,
President.

CHARLES P. WILLIAMS, A.M.
Director and Professor of Analytical Chemistry and Metallurgy.

Col. JAMES W. ABERT, A.M.,
Professor of Civil Engineering and Drawing.

NELSON W. ALLEN, A.B.,
Professor of Pure Mathematics.

.....*
Professor of Applied Mathematics and Engineering.

.....*
Professor of Geology and Natural History.

WILLIAM COOCH,
Professor of English Branches, etc.

.....*
University Professor of Military Tactics.

WILLIAM E. GLENN, M.D.,
Lecturer on Anatomy, Phyisology, and Hygiene.

JOHN HOLT GILL,
Librarian.

* To be filled during the summer.

List of Students.

SECOND YEAR.

Amsden, Otto B	Cuba.
Duncan, Gustavus A	Arlington.
Frost, William S	Rolla.
Gill, John H	Rolla.
Pack, John W	Rolla.
Taylor, Edward C	Rolla.
Williams, Hillary A	Arlington.

FIRST YEAR.

Deegan, Francis J	Rolla.
Gerrish, David A	Rolla.
Gibson. Thomas R	Steelville.
Hare, Almon W	Rolla.
Hatch, Osias M	Rolla.
Livesay, John S	Rolla.
McDowell, William M	Jacksonport, Ark.
Vivion, William H	Lisbon.
Weber, Americus C	Rolla.
Winters, Christian R	Rolla.

SPECIAL.

Appley, Blanche M	Louisville, Ky.
Baker, Flora J	Rolla.
Bishop, Jennie	Rolla.
Bishop, Julia	Rolla.
Christy, Peter	Rolla.
Emerson, Lizzie	Rolla.
Falls, Emma	Rolla.
Garvens, Minnie E	Rolla.
Guild, Frank	Rolla.
Hoskinson, Fannie M	Rolla.
Hume, Annie M	Rolla.
Hutcheson, Mary E	Rolla.
Ingalls, Florence E	Jerome.
Livesay, Arametta	Rolla.
Love, Carrie T	Rolla.
Love, Eliza E	Rolla.

Sawhill, J. B.....Rolla.
Seay, Hattie E.....Rolla.
Seay, William I.....Rolla.
Shaw, Lola J.....Rolla.
Smith, Ex.....Rolla.
Tallman, W. B.....Rolla.
Warmoth, Emma.....Rolla.
Whiting, Florence E.....Rolla.
Wilson, Mary E.....Rolla.

PREPARATORY.

Alter, William H.....Meramec.
Anderson, A. J.....Waynesville.
Arthur, A. J.....Saline.
Blow, Peter E.....St. Louis.
Bumpass, Oliver P.....Weldon.
Crews, Locke H.....Gray's Summit.
Dyer, James L.....Rolla.
Emerson, Cyrus G.....Rolla.
Faulkner, Charles W.....Rolla.
Garvens, Oscar E.....Rolla.
Goggins, Charles S.....Rolla.
Griswold, Edward H.....New Haven.
Hambleton, Wallace.....Rolla.
Harrison, John P.....Arlington.
Haskell, Frank C.....Phelps
Hatch, Arthur G.....Rolla.
Lamkin, Uel.....Jefferson City.
Lawrence, George W.....Meramec.
Love, George L.....Rolla.
McCown, John W.....West Plains.
Millsaps, Thomas H.....Meramec.
Minger, William C.....Maries.
Pierce, James W.....Neosho.
Robinson, V. A. S.....Waynesville.
Schleer, Peter.....Rolla.
Scott, Homer E.....Rolla.
Snelson, William H.....Meramec.
Storts, Charles B.....Rolla.
Storts, Jefferson.....Rolla.
Thiele, Louis W.....St. Louis.
Toomey, Joseph.....Rolla.
Van Wormer, Andrew.....Rolla.
Wolf, Seymour H.....St. Louis.

COURSE OF STUDY.

PREPARATORY.

First Semester.

Algebra—to Quadratic Equations (Loomis); Metrical System.
Rhetoric and Composition—(Hart).
Geography—Industrial and Physical—Lectures.
Chemistry—(Eliott & Storer's Manual); Physics—Lectures.
Drawing—Freehand and Ornamental.

Second Semester.

Algebra—finished.
Logic—(Coppee).
Chemistry—(Eliott & Storer's Manual); Physics—Lectures.
Botany—Structural and Systematic—(Gray).
Drawing—Freehand and Ornamental.
During entire year—bi-weekly exercises in declamation and themes.

FIRST YEAR.

First Semester.

Geometry—(Davie's Legendre).
Chemical Philosophy—(Cooke); General Chemistry—Lectures.
Analytical Chemistry—Qualitative Analysis—Blow-pipe—(Elderhorst).
Zoölogy; Mineralogy—Descriptive (Dana).
Physics—Lectures.
Drawing—Mechanical.

Second Semester.

Trigonometry—(Loomis); Mensuration—(Vogdes).
Land Surveying—(Gillespie); Field Practice.
General Chemistry—Lectures.
Mineralogy—Determinative (Laboratory).
Analytical Chemistry—Qualitative Analysis—(Fresenius).
Physics—Lectures.
Drawing—Mechanical.

During the entire year—bi-weekly exercises in declamation and themes.

SECOND YEAR.

First Semester.

Analytical Geometry — (Loomis); Descriptive Geometry — (Davies).

Higher Surveying—(Gillespie); Field Practice.

Metallurgy—General; Iron, Zinc and Nickel—Lectures.

Analytical Chemistry—Qual. Anal.—(Fresenius).

Geology—Dynamical and Historical—Lectures.

Drawing—Mechanical.

Second Semester.

Calculus — (Loomis); Shades, Shadows, and Perspective — (Davies).

Civil Engineering—(Mahan); Drawing—Mechanical.

Metallurgy—Copper, Lead, Silver, and Mercury—Lectures.

Analytical Chemistry—Quantitative Analysis; Assaying.

Geology—Dynamical and Historical.

THIRD YEAR.

First Semester.

Analytical Mechanics; Mining Engineering—Lectures.

Metallurgy—Gold, Tin, Bismuth, and Antimony—Lectures.

Analytical Chemistry—Quantitative; Assaying.

Geology—Applied; Veins and Vein Phenomena.

Second Semester.

Applied Mechanics; Mining Engineering—Lectures.

Machinery and Motors.

Analytical Chemistry—Quantitative.

Graduation Theses.

An evening course of Lectures on Anatomy, Physiology and Hygiene is delivered during the winter Semester, and is open to all students. French and German are optional studies during all the years excepting the preparatory.

The course of study will be rigidly adhered to by all students, candidates for the degrees of this department of the University. Students not candidates for degrees (special students) are admitted at any time, and are allowed the fullest liberty in the selection of their studies, provided always that such shall have at least sixteen recitations, or their equivalent, weekly. To this class of students, certificates of proficiency are issued on satisfactory exam nation.

FEES, EXPENSES, ETC.

The fees for instruction in the School of Mines and Metallurgy are the same as for that of the other departments of the University, viz: An annual entrance fee of ten dollars, besides an assessment of five dollars per semester for use of the library and for incidentals. Special students are subject to the same charges; an exception, however, being made against those devoting their entire time to Analytical Chemistry or Assaying. Such, pay a small additional fee for chemicals consumed. There are no extra charges for laboratory instruction to students of the regular course, excepting for breakage of glassware. All students furnish their own blow-pipes and platinum.

ADMISSION.

For the Preparatory Department, applicants must be at least sixteen years of age, and must stand an examination in the ordinary branches of an English education. For admission to First Year studies, students must be at least seventeen years of age, and must stand an examination in all the regular studies of the Preparatory Year.

Special students, in any department, are admitted without previous examination.

An examination for admission will be held on Tuesday and Wednesday, 2d and 3d days of September, 1873. The collegiate year begins Thursday, September 4th. There is no suspension of exercises—other than for examination—between the two semesters of the year.

Boarding in private families can be procured at rates ranging from $2.50 to $4.00 per week.

The school is located at Rolla, Phelps County, on the line of the Atlantic and Pacific Railroad, one hundred and thirteen miles southwesterly from St. Louis. The locality is preëminently healthy, and is in the midst of an extensive and rapidly developing iron section, with districts abounding in lead and zinc deposits within easy access. Good opportunities are thus afforded for the field study of some of the occurrences of the ores of these metals, and for the practical study of their modes of treatment. Excursions for such purposes will constitute a prominent feature in the instruction of the advanced classes.

HISTORICAL, ETC.

The School of Mines and Metallurgy was formally opened November 23d, 1871, and, though just closing its second year, has had

most encouraging success. It is designed, in connection with the Agricultural College of the University, to carry out to its amplest extent the intention of the Act of Congress providing for education in the industrial arts. Its curriculum has therefore been arranged with that prominently in view, and effort has been made to furnish ample facilities for thorough instruction in the sciences and in their industrial application. It is a school of Technology, with Civil and Mining Engineering and Metallurgy as specialties.

The apparatus, instruments and other appliances already possessed by the School are very complete and of the best approved forms. Among these are excellent surveying and engineering instruments; physical apparatus, embodying the newest forms for illustration and research; and drawing rooms well furnished with models for engineering, topographical and ornamental drawing. Instruction in this department is continuous through the full four years of the course, with at least one hour's practice daily, though the rooms are accessible to the students for volunteer work at such other times as may be taken without violence to other duties.

The geological, mineralogical and metallurgical collections are rapidly increasing, by both donation and purchase. Under the Act creating the Geological Survey of the State, this School is the depository of one of the three suites of specimens collected during the progress of the survey. Already a number of excellent and characteristic specimens from domestic localities have been received from that source. Mineralogical excursions, and laboratory practice in the determination of minerals supplement the exercises of the class room in this department. The laboratories for analysis and for assaying are well furnished with working tables and with apparatus and reagents necessary for practical instruction and for any line of research. The course in the laboratories extends through three years, and is individual in its character. For the regular students it comprehends daily exercises confined to the afternoons. During the last year the students' time is largely occupied at original research in connection with the subject-matters of their theses.

The library has been selected with special reference to supplementing the labors of the class and lecture rooms, and consists, therefore, largely of standard reference works on the physical sciences, mathematics, and technology. A good selection of technical periodicals is supplied to the reading room, and strong efforts will be made to keep the collection of these and of the books up to the progress of the several departments. The same may be safely promised for the apparatus, collections, models and other adjuncts to the proper working of a school of this character.

CALENDAR.

1873.

September 4, Thursday.....Winter Semester begins.
December 20, Saturday.....Close for Christmas holidays.

1874.

January 5, Monday.....Exercises resumed.
February 4, Monday.....Half yearly Examination begins.
February 9, Saturday.....Half yearly Examination closes.
February 11, Monday.....Summer Semester begins.
June 18, Wednesday.....Annual Commencement.

Patig Sent July 8 '73

3 0112 105856139